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From Mystery to Checklist

Gawande Speaks on Art, Science in Medicine

By Belle Waring

In a sweeping campaign to improve medical performance, Harvard Medical School's Dr. Atul Gawande has taken the battle beyond the operating room.

A distinguished surgeon, author and White House advisor, Gawande's research focuses on reducing deaths, complications and disparities in surgery in the U.S. and abroad. And when he's not in scrubs or writing his New Yorker column, Gawande directs the World Health Organization's Global Challenge for Safer Surgical Care. He recently visited NIH to give back-to-back lectures, each to a packed house.

"We all want medicine to be an orderly field of knowledge and procedure," he said. "The going words these days are 'precision medicine' or 'personalized medicine'...and Dr. Atul Gawande talks about that conjures an image of this being a world of orderliness. art, science in medicine. But it's not."



His first talk, "The Art of Failure in Medicine," one of the CC's Great Teachers

SEE **GAWANDE**, PAGE 6



Author Shannon Brownlee

'Tidal Wave of Cost'

Perhaps One-Third of Health Care **Spending Is Wasted, Says Brownlee**

By Rich McManus

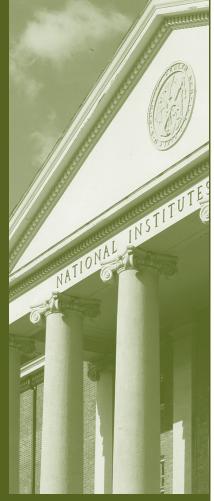
Epic waste of health care dollars is clearly visible from the altitude provided by the Dartmouth Atlas Project, which for more than two decades has tracked trends in health care spending—via Medicare data—nationally. But author Shannon Brownlee, whose award-winning reportage has relied heavily on DAP data,

NIH Visits Alaska to Promote Research Diversity

A group of NIH'ers recently traveled to several locations across Alaska on an outreach visit. The contingent included Dr. Mary Kerr, deputy director of NINR, Lawrence Self, chief of the Office of Equal Opportunity and Diversity Management, and members of the NIH outreach staff.

While outside temperatures often dipped below 0° F, they were greeted warmly as they met with state officials, university faculty and students, health care professionals and members of the Alaska Native/American Indian (AN/AI) community to provide information about NIH research and training opportunities, as well as to learn about the health conditions and needs of the AN/AI population.

Many Alaskans live in rural villages that dot the sparsely populated "bush country." Due to the often harsh weather conditions and the extreme distances involved, these villages are frequently difficult to access and may be underserved in both education and health care.



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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper and HHS.





Neuropathic Cancer Pain Symposium

The National Cancer Institute and the NIH Pain Consortium will host a Neuropathic Cancer Pain Symposium on Monday, Apr. 27 at the Bethesda Marriott-Pooks Hill. It will bring together a multidisciplinary group of researchers, clinicians and patient advocates to build on our knowledge and understanding of the role of pain and pain management in cancer care. The symposium seeks to address the knowledge gap in the area of neuropathic pain associated with cancer, due to the underlying disease, as well as therapy, and will include plenary sessions, panel discussions and opportunities for networking. Space is limited, so register soon. For more information, visit www.cancer. gov/researchandfunding/neuropain2009.

NIH Holds Career Symposium, May 19

The NIH Office of Intramural Training & Education invites all NIH graduate students and postdoctoral trainees, both basic scientists and clinicians, to participate in the NIH Career Symposium on Tuesday, May 19 at the Natcher Conference Center from 7:30 a.m. to 5 p.m. The symposium provides an opportunity for fellows and graduate students to learn about scientific career options available to them and to explore factors that lead to career success. Panel sessions will focus on science writing, teaching in a variety of settings, grants administration, public policy and both research-intensive careers and careers away from the bench in all sectors. Experts in each area will provide insights into their diverse career paths. Workshops will address professional skills including negotiation, interviewing, work/life balance, managing and the uses of optimism. Dr. Toni Hoover, vice president of Pfizer Global Research and Research & Development, will keynote this all-day event. A list of sessions and speakers and a registration link are posted at www.training.nih.gov. OITE, the fellows committee and the Graduate Student Council organized the event.

FAES Sponsors Free Community Shred Day

On Wednesday, Apr. 22, from 4 to 7 p.m., the FAES, in collaboration with Torn2Shredz, will sponsor a Free Community Shred Day. Watch on a closed-circuit TV while your old bank and credit card statements are destroyed and then sent for recycling. Limit of two boxes of documents per customer. Event is at the FAES Social & Academic Center, 9101 Old Georgetown Rd., across the street from NIH on the corner of West Cedar Lane and Old Georgetown.

Parenting Festival Set, Apr. 22

The seventh annual NIH Parenting Festival will be held on Wednesday, Apr. 22 from 11 a.m. to 2 p.m. in Bldg. 50's first floor conference area. As in past years, there will be representatives from many institutes to share information that benefits children and families. NIH support services for health, finance, benefits and work life will also participate. There will be activities and free resources, including "Ask the Parenting Specialist" for all employees. The event is sponsored by the NIH child care board and the ORS Division of Amenities and Transportation Services. For more information contact Tonya Lee at (301) 402-8180 or email leet2@mail.nih.gov.

Diversity Survey Needs Your Input

NIH is conducting a Race, Ethnicity and Disability Status Survey now through May 8. You can help the agency accurately assess the diversity of our workforce regarding race, ethnicity and disability status. Participate by going to the Learning Management System at https://lms.learning.hhs.gov to access the survey. For more information, contact Dr. Shelma Little at (301) 496-7543 or littlesm@mail.nih.gov.

National Day of Prayer, May 7

The National Day of Prayer will be celebrated on Thursday, May 7 at 11:30 a.m. on the lawn in front of Bldg. 1. All are invited to the nondenominational service to pray for our country and its leaders. This year's observance will feature musical entertainment. Friends and family are welcome—you can even bring your lunch.

Tae Kwon Do Beginner's Class

The NIH Tae Kwon Do School is offering a beginner's class for adults and mature teens. New students are invited to begin classes on Monday, Apr. 20. The curriculum combines traditional striking arts, forms, sparring and basic aikido techniques with emphasis on self-defense. No experience is necessary. Classes meet in the Malone Center (Bldg. 31C, B4 level, next to the NIH Fitness Center) from 6 to 8 p.m. on Mondays and 6 to 7 p.m. on Wednesdays (6-7 p.m. Fridays, optional). Registration fee is \$50 and includes 10 weeks of beginner's class and a uniform costs \$40. Interested persons are welcome to watch regular training sessions. For information call Lewis Sloter, (301) 213-5841 or visit www.recgov.org/r&w/nihtaekwondo.html.

Virologist Gallo To Deliver Hill Lecture, Apr. 23

Dr. Robert C. Gallo returns to NIH this month to deliver NIAID's James C. Hill Memorial Lecture. Known for his pioneering work in the field of human retrovirology, Gallo will present a lec-



ture titled, "A Journey with T Cells and Retroviruses," on Thursday, Apr. 23 at 2 p.m. in Masur Auditorium, Bldg. 10.

Currently the director of the Institute of Human Virology at the University of Maryland's School of Medicine in Baltimore, Gallo began his scientific career at NIH in 1965, caring for cancer patients. During his 30-year span at NIH, he established a laboratory at NCI where he made several important discoveries including the identification of growth factor interleukin-2 and the discovery of the first human retrovirus, known as human T cell lymphotrophic virus type 1 or HTLV-1. Through his work, HTLV-1 was linked to leukemia, the first time that a cancer was shown to be the direct result of infection by a human virus.

Gallo is perhaps most widely recognized for his substantial contributions to HIV/AIDS research. In 1983, he and his colleagues co-discovered the human immunodeficiency virus (HIV), the virus that causes AIDS. Subsequently, his team of scientists developed an HIV blood test, which provided a key tool for identifying infected individuals as well as screening for blood donations. In 1995, Gallo and colleagues discovered the first natural inhibitors of HIV, known as chemokines. This important finding was integral to the identification of CCR5, the co-receptor for HIV.

In his lecture, Gallo will reflect on each of these discoveries, examine the challenges of finding an effective vaccine to prevent HIV infection and offer a view into the future of retrovirology research and its implications for human disease.

A widely respected researcher, Gallo has received 27 honorary doctorates from universities in the U.S. and 12 other countries. His most notable honors and awards include the Albert Lasker Prize (two-time winner), the General Motors Cancer Research Prize, the American Cancer Society Medal of Honor, the Lucy Wortham Prize from the Society for Surgical

Oncology, the Armand Hammer Cancer Research Award and the Gairdner Foundation International Award for Biomedical Research. He was inducted into the National Inventors Hall of Fame in 2004 for his role in the discovery of HIV.

The NIAID-sponsored lecture is in honor of former NIAID deputy director Hill, who played a pivotal role in establishing the institute's HIV/AIDS research program during the early years of the epidemic. A reception in the atrium outside Masur Auditorium will be held after the lecture.—Thomas Liang [©]

Economist Sachs To Visit NIH, Apr. 22

Economist, best-selling author and global health advocate Dr. Jeffrey Sachs will visit NIH on Wednesday, Apr. 22 as a Fogarty International Center scholar-in-residence, part of FIC's 40th anniversary celebrations. He will give a campus-wide presentation titled, "Planet in Crisis: The Case for Investing in Global Health During a Financial Meltdown," at 11:30 a.m. in Masur Auditorium, Bldg. 10, with a reception to follow. In addition, he'll hold a series of discussions with NIH leadership on a variety of issues related to the global economy, health, nutrition and climate change. His activities are being sponsored by the Foundation for NIH.



Sachs is director of the Earth Institute, Quetelet professor of sustainable development and professor of health policy and management at Columbia University. For more than 20 years, he has been in the forefront of the challenges of economic development, poverty alleviation and enlightened globalization, promoting policies to help all parts of the world to benefit from expanding economic opportunities and well-being. He is also one of the leading voices for combining economic development with environmental sustainability. As director of the Earth Institute, he leads large-scale efforts to promote the mitigation of human-induced climate change.

He is the author of hundreds of scholarly articles and many books, including the *New York Times* bestsellers *Common Wealth: Economics for a Crowded Planet* and *The End of Poverty*. Sachs is a member of the Institute of Medicine and is a research associate of the National Bureau of Economic Research.

Next Wednesday Afternoon Lectures Set

The Wednesday Afternoon Lecture Series — held on its namesake day at 3 p.m. in Masur Auditorium, Bldg. 10—features Dr. Ruslan Medzhitov, HHMI investigator, Yale School of Medicine, speaking Apr. 22 on "Innate Host Defense: Mechanisms and Pathways."

On Apr. 29, Dr. Erkki Ruoslahti will address, "Vascular Zip Codes in Targeted Delivery of Multifunctional Nanodevices." He is a distinguished professor at the Burnham Institute for Medical Research. For more information or for reasonable accommodation, contact Sarah Freeman, (301) 594-6747 or sarah.freeman@nih.gov.

HEALTH CARE

CONTINUED FROM PAGE 1

offered ground-level perspective on America's overtreatment addiction at a Mar. 27 talk in Bldg. 50, presented by the NIH Consensus Development Program.

"What do patients want? That's another gap in our knowledge. Doctors are not good at figuring it out...It's not easy to get patients to really understand this stuff—most don't understand risk, or the difference between absolute and relative risk."

PHOTOS: MICHAEL SPENCER

"As much as one-third of our health care dollars are wasted," said Brownlee, a visiting scholar at the Clinical Center's department of bioethics and the author of *Overtreated: Why Too Much Medicine Is Making Us Sicker and Poorer.* "Health care spending is an enormous problem, a tidal wave of cost...and it is eating up an enormous percentage of our GDP [gross domestic product]. It is not sustainable."

While there is a perception that aging—the graying of the Baby Boomer generation—is driving up costs, Brownlee says aging "is really not that big a part of the problem." Rather it is utilization that spurs the spending: Americans tend to think more treatment equals better treatment, and are further seduced both by technology and, in many cases, the authority of the medical profession, despite evidence that much of that intervention is yielding little or no benefit.

"This is true for states, and for individuals," says Brownlee. "Many Americans don't perceive how much they are paying" because the costs are hidden behind lower wages and higher prices. "Health care costs average about \$8,000 per person, per year, for a total of about \$2.4 trillion," she said, an amount equal to an invisible second mortgage payment for the average family of four.

Brownlee set out to explain why health care costs are rising so rapidly. Using data from the Dartmouth Atlas, which divides the U.S. into 306 hospital-referral regions, she discovered "a great deal of unwarranted variation in the use of medical services."

Her analysis employed three categories of care defined by Dartmouth researchers: effective, evidence-based care, which accounts for only 12 percent of Medicare spending; preference-sensitive care, which includes elective procedures and tests that should depend on patient choice ("But usually depend on the doctor's preferenc-



Brownlee sets out to explain why health care costs are rising so rapidly.

es," she noted) and accounts for 25 percent of Medicare spending; and what she termed "supply-sensitive, or supply-push" care, where 63 percent of Medicare dollars end up.

In this latter category, health care is largely "governed by the assumption that more is better." For per capita Medicare spending, Dartmouth found geographical variations of 2½- to 4-fold, even among hospitals regarded by *U.S. News and World Report* as being among the nation's 77 finest.

But in what she termed the "paradox of plenty," higher and more costly utilization rates did not buy better care, but worse care, higher rates of mortality, worse communication among doctors and lower levels of patient satisfaction.

"It's really shocking to patients to hear about this," she noted. "They think care is based on their need. That's an illusion."

Brownlee had much to say about the doctor-patient relationship, which is a sociological tangent the audience was more than happy to follow (both Brownlee and her host, Dr. Barnett Kramer, director of the Office of Medical Applications of Research, insisted at the outset that a fun talk is one that can be freely interrupted by attendees' curiosity).

"What do patients want? That's another gap in our knowledge," she said. "Doctors are not good at figuring it out." So-called "patient-decision aids," which are meant to help patients make decisions about their care, are frequently not used, said Brownlee. "It's not easy to get patients to really understand this stuff—most don't understand risk, or the difference between absolute and relative risk."

There is also the effect of white-coat authority: "Patients have a hard time making their doc-

tors unhappy," said Brownlee. "We try to please them. It's upsetting to criticize their knowledge, or their caring. I think a lot of patients find this to be true."

Other barriers to appropriate care include health literacy (Brownlee says multiple methods, including written, visual and drama-based, are the most effective) and the outmoded notion of patient consent.

"If we're going to get more high-quality, shared decisionmaking between doctor and patient, then we need informed patient choice, not informed consent," she argued. "Consent means agreeing to something unpleasant, to permit, or to allow. We need to rethink how we ask patients to say 'Yes.' Choice is more active than consent."

Another barrier to appropriate, evidence-based care is "the general perception that more treatment equal betters treatment, and that more technology is even better," Brownlee continued. "We tend to equate expense with value, like with cars, restaurants and hotels."

Other factors driving exaggerated use of medical care include "defensive medicine," or procedures delivered solely to prevent lawsuits, a "technological arms race," in which hospitals brag about their latest gamma-knife gizmo or 64-slice scanner, and patient demand.

Another subtle factor is what Brownlee called the "shadow curriculum," an influential cultural force or ethos that permeates many institutions. "It's a practice pattern that evolves, but is not related to classroom instruction. It often opposes the wisdom of not doing anything [in a given case]."

Brownlee acknowledges that overtreatment is driven, too, by sheer anxiety and uncertainty.

She concluded with two prescriptions for bending the cost curve in a downward direction: reduce the overuse of acute-care hospitals and introduce "much more organized patient care" (the DAP map showed that the most appropriate levels of care are concentrated in the mountain west and along America's northern border, an area characterized by large group practices, Brownlee noted); and work harder to ensure informed patient choice, not its passive cousin "consent."

NIH MedlinePlus Salud Magazine Debuts

There's a new magazine for people who want health information in Spanish. NIH, NLM and the Friends of the National Library of Medicine recently launched *NIH Medline*Plus *Salud*. The magazine is produced in partnership with the National Alliance for Hispanic Health.

The new publication, written in both English and Spanish, complements NIH Medline Plus magazine, which premiered in 2006. Salud (the Spanish word for health) was created to bring quality health information to more people and to address the health needs of the growing Hispanic population. According to the U.S. Census Bureau, the Hispanic population is the fastest growing minority group in the country. Hispanics made up 15 percent of the population in 2007 and the Census Bureau projects they will make up 30 percent of the population by 2050.



NIH MedlinePlus Salud is NIH's first generalinterest consumer magazine in Spanish. The magazine's content comes from NIH and includes the latest research and useful health tips.

The pilot issue of *NIH Medline* Plus *Salud*, introduced earlier this year, features Cuban-American journalist Cristina Saralegui, who is well known for her Univision talk show, *The Cristina Show*, as well as her work on behalf of health and wellness causes. The 30-page pilot issue is being distributed nationwide through doctors' offices, health and community centers, clinics and hospitals and medical libraries.

Salud, a new publication, written in both English and Spanish, complements NIH MedlinePlus magazine, which premiered in 2006.



NIH deputy director for intramural research Dr. Michael Gottesman (1) welcomes Gawande to NIH.

GAWANDE

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PHOTOS: MICHAEL SPENCER

Series in Lipsett Amphitheater, explored "what happens when understanding doesn't yet exist." Gawande segued with "The Science of Failure in Medicine," the Rall Cultural Lecture in the Wednesday Afternoon Lecture Series in Masur Auditorium.

Even if errors were eliminated and mysteries solved, Gawande said, "Medicine's ground state remains uncertainty." Wisdom for both patient and doctor is to find how one copes with it.

"The Art" wove together three stories: an elderly patient who refused lifesaving surgery; Gawande's own daughter, in the ER with a raging fever; and a young woman who might—or might not—have a deadly infection.

The patient who refused surgery was still (astonishingly) alive and well a year later. Gawande's daughter was sent home from the hospital, all tests negative, yet in fact had influenza A. And the woman with a foot infection—this was the cliffhanger. Could she have necrotizing fasciitis, a virulent infection that destroys tissue beneath the skin?

The patient balked at a biopsy. The "second opinion" came, saw and hedged. Lab tests were inconclusive. The surgical team then had a choice: take the patient to the OR or watch and wait.

"We want to trust in judgment, but human physician judgments are all over the map," Gawande said. According to "the blind algorithm," an analytical calculation of risks and benefits, not doing surgery would be appropriate.

Yet "we had a hunch"—based on experience— "and this is hard to ignore," he said.

With the patient's consent, the surgeons set to work. And there it was: necrotizing fasciitis.

Amputate or not? Gawande, then a surgical resident, said yes; the attending physician resisted. Another uncertainty. After multiple procedures, they saved the leg and the patient recovered.

"She's the single greatest save I've ever gotten to be a part of," Gawande said.

Yet in this case, so rife with ambiguity, he still thinks they got lucky: "I don't think we in medicine have explained or understood our fallibility," he said. "There's science to be done on how we cope with uncertainty...very, very important. We also must examine the reality, and the only way to do that is in the details, and the best way to do that...is art.

"In writing about these matters, here's what surprised me the most," he continued. "People have found hearing about these details more reassuring than they've found them frightening...They know we will never achieve perfection. But they also want to know that we'll never cease to aim for it."

How do you aim for it? That's where his second talk, "The Science of Failure of Medicine" fits in.

Surgical safety is a major public health concern. Out of the 230 million operations performed worldwide in 2008, "three percent resulted in major disability or death," Gawande noted. "At least half the time, those [adverse events] are preventable."

His team developed a "surgical safety checklist" for operating room staff to share information quickly, consistently and efficiently. Inspired by pilot safety checklists used before takeoff and landing, the surgical checklist includes such items as staff introductions (by name), whether antibiotics have been given before the first incision and an estimate of how much blood the patient is expected to lose.

Over a year-long study on 7,688 "checklisted" surgical patients in 8 cities, the death rate dropped from 1.5 percent to 0.8 percent; complications fell from 11 percent to 7 percent.

Gawande also discussed the work of Dr. Peter Pronovost who designed a checklist for the insertion of central lines—catheters placed in large blood vessels, such as the vein that runs beneath the collarbone. Thanks to the list, the reduction in infection rate was dramatic.

"It's not that a checklist is the be-all and endall," said Gawande. "The core idea is that knowledge must change behavior...A checklist is critical. Without it you can do things correctly most, but not all, of the time."

And we must measure outcomes. One of the



At one of two lectures Gawande gave at NIH, he chats with Gottesman.

most disturbing things, he said, is cuts in funding for health statistics.

In a system of extreme complexity—a hospital in the real world, "where we still have trouble getting people to simply wash their hands"—a checklist can also help manage the complexities of the intensive care unit. Gawande recounted how an Austrian hospital saved a 3-year-old girl who suffered a near-drowning after 30 minutes in freezing water.

"I had a chance to talk to the surgeon who saved that little girl," he said. The case was in a community hospital in a rural area where, every year, they would lose patients from hypothermia.

"When [the surgeon] saw the problem, a lack of speed [in hospital team response], he made a checklist. He gave it to the person with the least power, the telephone operator," who called seven people on her list.

The telephone operator deployed the team.

"And with that," said Gawande, "they had their first survival."

Take Your Child to Work, Apr. 23

The Office of Equal Opportunity and Diversity Management will host the 15th annual NIH Take Your Child to Work Day on Thursday, Apr. 23. It is a great opportunity to share with children what you do at work, as well as how NIH supports biomedical research to improve the health of all people. There will be new activities as well as favorites from past years. Last year's event survey showed that even parents learned things about NIH they didn't know before.

The preregistration process is closed. However, there are some key dates that parents need to remember. Registered parents will have two opportunities to pick up registration materials in the South Lobby, Bldg. 10: Tuesday, Apr. 21 between 8:30 a.m. and 4:30 p.m., and Wednesday, Apr. 22 between 8:30 a.m. and 1 p.m. For those who did not have an opportunity to preregister and/or pick up the registration materials, sign-in will be available in the South Lobby, Bldg. 10 on Thursday, Apr. 23 between 8 a.m. and 1 p.m.

Parents, don't forget to complete your Accompanied Child Visitor Pass for easy access to campus (http://security.nih.gov/PDFs/ACVPform.pdf). Send questions or comments to Take-Your-Child-To-Work@nih.gov or call (301) 402-3663.

Sign language interpreters will be available. Individuals with disabilities who need reasonable accommodation to participate in this event should contact Carlton Coleman, (301) 496-2906 voice, (800) 877-8339 Federal Relay, email ColemanC@od.nih.gov. Requests should be made at least 7 days before the event.

2nd Annual NIH Take a Hike Day, May 6

It's time once again to grab a coworker or two, or three, an office, a division, an institute/center and lace up your walking shoes. What better way to take a break from all of the hustle and bustle than to go for a leisurely stroll or jog around the perimeter of the NIH campus?

In conjunction with the 2009 National President's Challenge and the HealthierFeds initiative, the NIH Office of Management in partnership with the ORS Division of Amenities and Transportation Services invites all NIH employees and contractors to participate in a non-competitive walk or fun run on Wednesday, May 6 from 11 a.m. to 2:30 p.m.

As the saying goes, "A journey of a thousand miles begins with a single step." How far can you walk—¼ mile, 1 mile and what about 2.8 miles? No matter how far, the ultimate goal is to begin or continue a regular habit of physical activity and create a foundation for long-term behavior changes for a healthier lifestyle.

Earn your institute/center bragging rights for having the most registered employees participating in this year's Take a Hike Day. Before the walk/ fun run begins, the top five ICs with the most registered employees will be recognized by the NIH acting director for their support of the HealthierFeds initiative.

Don't delay—registration started on Apr. 6 and continues through Friday, May 1. For more information, visit http://does.ors.od.nih.gov/fitness/hike_schedule.htm. Sign language interpreters will be provided. Individuals who need reasonable accommodation to participate in the event should contact Carole Harman at (301) 402-8180.



ALASKA CONTINUED FROM PAGE 1

Members of the NIH group that visited Alaska include (from l) Pedro Morales, Lawrence Self, Julie McNulty, Kay Johnson Graham and Dr. Mary Kerr.

However, the NIH visitors learned that University of Alaska (UA) campuses actively recruit indigenous students, providing remedial classes, tutoring and mentoring programs as needed. UA-Fairbanks, with a student population that is roughly 18 percent AN/AI, offers Ph.D.s in several scientific fields and receives NIH funding for research in areas such as genetics, heart disease and health disparities. UA-Anchorage (10 percent AN/AI) founded a program that works with students at all levels to improve academic success in science and engineering. The UA-Anchorage School of Nursing supports another program aimed at recruiting more AN/AI students into nursing.

The NIH'ers also toured the Alaska Native Medical Center in Anchorage, which includes a tribally owned hospital, as well as a primary care center that provides health care team visits to villages across the state. They saw the hospital's level 2 trauma unit, the only one in Alaska, and learned about the strong emphasis of the nursing department on evidence-based practice and nursing research.

"The trip was a success on several fronts," said Self. "We identified many talented candidates who are interested in applying to NIH research training and employment opportunities. Our office is committed to this outreach effort, as a way to increase diversity in the scientific pipeline and broaden the participation in NIH opportunities."

"I was very impressed with the dedication of the Alaskan health professionals we met," noted Kerr. "We hope to attract more of them into research, as well as to improve access to health care for all people across this vast and wondrous state." @

NIGMS's Bailey Lash Receives Technology Leader Award

Dr. Tiffani Bailey Lash was among more than 300 engineers and scientists who received 2009 Modern-Day Technology Leader Awards from U.S. Black Engineer and Information Technology



magazine. Bailey Lash, who serves as an AAAS science and technology policy fellow in the NIGMS Office of the Director, was recognized for her accomplishments in science and her leadership in the workplace and community. In her role at NIGMS, Bailey Lash contributes to the development of policies and procedures concerning grants management, administration, review and workforce diversity efforts. She also serves as a visiting assistant professor in the department of chemistry and biochemistry in the College of Chemical & Life Sciences at the University of Maryland. Prior to joining NIGMS, Bailey Lash earned a Ph.D. in chemistry from North Carolina State University.

CIT Team Honored by Tech Council

The Government Information Technology Executive Council has awarded the GITEC 2009 Project Management Excellence Award to the NIH Federated Identity Service team, led by Debbie Bucci and Valerie Wampler (shown, r)



of CIT. Federated identity provides biomedical scientists and clinical researchers a virtual community of shared resources across research institutions and disciplines. Such collaboration enhances scientific discoveries and advances the diagnosis, treatment and prevention of disease. For more information on NIH Federated Identity Services, email nihfederationrequest@mail.nih.gov.

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feedback

Have a question about some aspect of working at NIH? You can post anonymous queries at www.nih.gov/nihrecord/index.htm (click on the Feedback icon) and we'll try to provide answers.

Feedback: When taking the Executive Boulevard or Rockledge Shuttle to go to meetings at Natcher, we used to get off at the stop just inside the NIH fence at the Metro and walk up the hill. Now they have removed the sidewalk and put up "Keep off the grass" signs. Walking around roughly triples the walking distance. Why did they take away our sidewalk? Can we have it back please?

Answer from the Office of Research Facilities:

The temporary sidewalk was located between the Stone House and the Gateway Center in an area designated in the NIH Master Plan as grass and open green space. The sidewalk was built as a temporary pathway to the southeast section of campus (including Natcher and NLM) while the Gateway construction was under way. Now that construction is complete, the project requires the area to be restored to its original condition to prevent soil erosion.

A direct, permanent and ADA-compliant pathway now exists from the Gateway Center/Metro area to the same general location behind the Natcher Bldg. that the temporary sidewalk previously served. Employees need only walk between the Gateway Center and the MLP-11 parking garage to access Natcher or any other building in the area. The new route adds little or no time to the previous route.

Feedback: Doesn't anyone at NIH care how noisy this place can be? I had to laugh because there was a picture on the NIH web site about the Noisy Planet: that's NIH I said! We have jackhammers, leaf blowers, lawn mowers, vacuum cleaners, dump trucks. With so much noise, I often find it hard to do my job. No one seems to care that at a research agency, many of [us] need quiet in order to concentrate and complete our work. Someone ought to be in charge of monitoring noise levels. Operations involving loud noise should be performed in the evening or on weekends.

Reply from the Office of Research Services:

Your points are well taken. Although NIH recognizes that construction and maintenance noise on campus can be a distraction to staff and

contractors, NIH also has the surrounding neighborhoods to take into account when considering when to conduct facility-related activities. According to Montgomery County Code, the NIH noise should be limited to 65dB or less during the day and 55dB or less at night at the NIH fence line. Daytime means 7 a.m. to 9 p.m. on weekdays and 9 a.m. to 9 p.m. on weekends and holidays.

NIH conducted a noise study with the help of an expert in the field of acoustics and vibrations. The 2007 study showed that NIH does not exceed county noise limits in surrounding neighborhoods, but this involves scheduling when we can accomplish certain tasks. Although the interior of campus may experience higher noise levels at times, the county ordinance makes NIH consider noise when conducting construction and maintenance work that might be loud.

The campus is like a small, compact city. It has continued to grow and currently supports over 12.4 million square feet of built space requiring ongoing renovations, maintenance and new facilities. Considering that we are directly adjacent to residential neighborhoods on three sides and two major roadways, one begins to understand the complexities associated with noise. There are numerous efforts made to reduce noise around NIH through plantings, placement of buildings and operational adjustments. Per county ordinance, the preferred time higher noise levels are permissible occurs during the normal workday. Therefore we attempt to conduct our noisier operations during the day. We have also scheduled noisy activities on the weekend during the daylight hours to minimize the impact.

Feedback: What is the status of the new tower outside of Bldg. 31? The *NIH Record* article said the project would be completed in the fall of 2008. It is April 2009 and construction is still going on.

Reply from the Office of Research Services: The Bldg. 31 Fire Stairwell/Life Safety Improvement Project is scheduled for completion this summer. Most of the exterior work is close to completion. Once the structural exterior work is finished, the interior work will begin.

Along with weather delays, a major contributing factor to the delay in the construction schedule was the need to provide "no-noise" construction dates to the contractor in order to allow for the continuation of important meetings on the 6th floor of Bldg. 31C. As occupants of Bldg. 31 are well aware, the noise on many dates has been unbearable and it would be impossible to hold a meeting or conference in this environment. The conference schedule was rigorously screened and meetings were moved to other facilities when possible. But due to the heavy use of the facilities for institute/center council meetings and various other high-level events, it was impossible to move many of them or reschedule them to future dates. Many of these events had been scheduled 2 years in advance. Without the no-noise dates, the NIH mission would have been severely impacted if heavy machinery and other construction producing excessive noise were used during these meetings.

Gene Scan Shows Body's Clock Influences **Numerous Physical Functions**

The pineal gland—integral to setting the body's sleep and wake cycles—may be

involved in a broad range of bodily functions, according to a study by researchers at NIH and other institutions. Using a technology that scans for the activity of thousands of genes at a time, scientists found the activity of more than 600 genes in the pineal gland is synchronized in some way with the 24-hour sleep and wake cycle. The genes influence such diverse functions as inflammation and immunity. Researchers have traditionally studied the gland in hopes of gaining insight into the health problems of shift workers and people who frequently travel between time zones. The pineal gland produces the hormone melatonin, which regulates the cycle of sleep and waking. The study appeared in the Mar. 20 issue of the Journal of Biological Chemistry.



Scientists have found that the activity of more than 600 genes in the pineal gland is synchronized in some way with the 24-hour sleep and wake cycle.

Autism Skews Developing Brain with Synchronous Motion and Sound

Individuals with autism spectrum disorders (ASD) tend to stare at people's mouths rather than their eyes. Now, an NIH-funded study in 2-year-olds with the social deficit disorder suggests why they might find mouths so attractive: lip-sync—the exact match of lip motion and speech sound. Such audiovisual synchrony preoccupied toddlers who have autism, while their unaffected peers focused on socially meaningful movements of the human body, such as gestures and facial expressions. "Typically developing children pay special attention to human movement from very early in life, within days of being born. But in children with autism, even as old as 2 years, we saw no evidence of this," explained Dr. Ami Klin of the Yale Child Study Center, who led the research. "Toddlers with autism are missing rich social information imparted by these cues, and this is likely to adversely affect the course of their development." The study, funded in part by NIMH appeared online Mar. 29 in the journal Nature. According to NIMH director Dr. Thomas Insel, this study has pinpointed for the first time

what grabs the attention of toddlers with ASDs. "In addition to potential uses in screening for early diagnosis," he said, "this line of research holds promise for development of new therapies based on redirecting visual attention in children with these disorders."

Skin Cancer Study Uncovers New Tumor Suppressor Gene

NIH researchers have identified a gene that suppresses tumor growth in melanoma, the deadliest form of skin cancer. The finding was reported Mar. 29 in the journal Nature Genetics as part of a systematic genetic analysis of a group of enzymes implicated in skin cancer and many other types of cancer. The study's senior author is Dr. Yardena Samuels of NHGRI. The NIH analysis found that one-quarter of human melanoma tumors had changes, or mutations, in genes that code for matrix metalloproteinase (MMP) enzymes. The findings lay the foundation for more individualized cancer treatment strategies where MMP and other key enzymes play a functional role in tumor growth and spread of the disease.

Surgery to Reshape Ventricle in Heart Failure Patients Offers No Added Benefit over Bypass

A type of surgery that reshapes the scarred left ventricle—the main pumping chamber of the heart—and is often done in conjunction with heart bypass, not only failed to reduce deaths and hospitalizations in heart failure patients but also did not improve patients' quality of life compared to bypass alone after 4 years of follow-up, according to the results of a large international clinical trial funded by NHLBI. The results from the Surgical Treatment for Ischemic Heart Failure Trial (STICH) were presented at the American College of Cardiology's 58th annual scientific session in Orlando. The main mortality findings were also published online Mar. 29 in the New England Journal of Medicine and will appear in the Apr. 23 print issue; findings from a substudy of STICH on quality of life were published online on Mar. 30 in the American Heart Journal. —compiled by Carla Garnett



Bldg. 5 Adopts Expectant Geese Parents

The front door to Bldg. 5 has become the new residence of a pair of Canada geese, whose egg-filled nest is located in a flower bed. "Most of the time the female goose sits on the eggs and the male goose stands guard," said Ying Huang, who works in the building. "Except when they have lunch, which gives me a chance to take a picture of their eggs. The people working in Bldg. 5 use

the back and side doors—we keep the front door quiet. We wouldn't disturb them and we are waiting for the new baby geese who are coming." Another employee in the building, NIDDK's Shuko Yoshikami, also took photos of the expectant couple.

PHOTOS: YING HUANG, SHUKO YOSHIKAMI





volunteers

The phone numbers for more information about the studies below are 1-866-444-2214 (TTY 1-866-411-1010) unless otherwise noted.

Liver Disease Study Seeks Participants

Individuals with liver disease are needed for NIH study. NIDDK is conducting studies on liver diseases including hepatitis B, C and D, primary biliary cirrhosis, non-alcoholic steatohepatitis (NASH), fatty liver disease, autoimmune hepatitis, portal hypertension not due to cirrhosis, acute hepatitis from any cause, and rare or unexplained liver disorders. Studies are conducted at the Clinical Center. No cost for study-related medications, tests or treatments. Must be 18 years of age or older. Refer to study 91-DK-0214.

Women with Pelvic Pain Needed

Healthy women are needed for a study investigating the role of hormones and genes in pelvic pain and explore better approaches to treatment. If you are ages 30-50, consider participating in this study. All study-related tests are provided at no cost. Compensation is provided. Refer to study 04-CH-0056.

Healthy Volunteers Wanted

Healthy volunteers are needed for a study designed for the collection of stem cells from blood of adult humans for use in research studies. Researchers are studying adult stem cells to gain insight into blood diseases. If you are age 18 or older, consider participating in this study. All study-related tests are provided at no cost. Compensation is provided. Refer to study o6-DK-0142 or visit www. clinicaltrials.gov. Se habla español.

Neck Pain Study Needs Volunteers

Are you a healthy individual with or without neck pain? If you are between the ages of 18 and 65, you may be eligible to participate in an NIH neck pain study and receive a comprehensive cervical musculoskeletal examination without compensation. This is a 3-month natural history study, not a treatment study. For more information, email neckpainstudy@gmail.com or call (301) 451-7514. Refer to study 02-CC-0245.



R&W Circus Night Goes 'Over the Top'

The 12th annual Children's Premiere Night with the Ringling Bros. and Barnum & Bailey Circus, sponsored by the NIH Recreation and Welfare Association on Mar. 18, was a huge success. With this year's ticket sales, 100 people (patients and families) from the Clinical Center pediatric unit were among the 8,500 attendees, smiling from ear to ear.

After a pizza party, the NIH group visited a pre-show gathering with some of the performers and then watched the main event, which was themed "Over the Top" and included a ride in a parade of gigantic simulated motorcycles. "They were exhausted by the day's end but were still smiling as they loaded back onto the bus to go back to NIH," reports one of the event organizers.

Ringling Bros.'s James "Crickett" McGrath, Luis "Luigi" Jaramillo and Thomas Dougherty, three circus clowns, also brought chuckles earlier that day with visits to the Clinical Center and the Children's Inn at NIH.



At the Children's Inn, Kegan and Samantha Druckenmiller meet Ringling Bros. and Barnum & Bailey Circus clowns (from l) James "Crickett" McGrath, Thomas Dougherty and Luis "Luigi" Jaramillo.

Right:

During their Clinical Center visit, the clowns mug alongside Danielle Harriott (c) and her mom, Cassandra Christopher.

PHOTOS: ERNIE BRANSON & MICHAEL SPENCER





Above, Kayla Gillette (c) enjoys a pre-circus party with the cast. At right, the faux motorcycle parade gives a lift to several groups of guests from NIH. The annual night at the circus is sponsored by the R&W Association.

